

DOCUMENT RESUME

ED 280 809

SP 028 677

TITLE School Based In-Service Teaching: A Handbook.
INSTITUTION United Nations Educational, Scientific, and Cultural Organization, Bangkok (Thailand). Regional Office for Education in Asia and the Pacific.
PUB DATE 86
NOTE 62p.; Product of the Asia and Pacific Programme of Educational Innovation for Development (APEID).
AVAILABLE FROM UNIPUB 4611-F Assembly Drive, Lanham, MD 02706-4391.
PUB TYPE Guides - Non-Classroom Use (055) -- Reports - Descriptive (141)
EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Elementary Education; Foreign Countries; *Inservice Teacher Education; *Non Western Civilization; Participative Decision Making; *Program Development; *Program Effectiveness; *Teacher Participation

ABSTRACT

This monograph presents the results of an exploration of the effectiveness of the School Based In-Service Training (SBIT) program for primary teachers. The program operates on the premise that the school is the largest and most appropriate unit for educational change, and that teachers not only have the capability to develop their personal and professional abilities in the school and community, but also need to be involved in the identification and articulation of their own training needs. Chapter I describes the experience and practices of countries participating in SBIT. Chapter II offers guidelines for the development of SBIT programs. In Chapter III, summaries of case reports are presented from five countries that conducted pilot/experimental studies on the use of SBIT programs as a response to the growing needs and demands of social and technological changes in the society in which the schools operate. These reports are from: (1) Nepal; (2) Pakistan; (3) Papua New Guinea; (4) Republic of Korea; and (5) Thailand. The final chapter discusses the future potential of SBIT. (JD)

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UNESCO REGIONAL OFFICE FOR EDUCATION IN ASIA AND THE PACIFIC, BANGKOK

Unesco. Regional Office for Education in Asia and the Pacific.

School based in-service training; a handbook. Bangkok, 1986.

49 p. (Asia and the Pacific Programme of Educational Innovation for Development)

1. TEACHER EDUCATION - ASIA/PACIFIC.

2. IN-SERVICE TEACHER EDUCATION - ASIA/PACIFIC.

I. Title. II. Series.

370.71



Asia and the Pacific Programme
of Educational Innovation
for Development



SCHOOL BASED IN-SERVICE TRAINING: a handbook



UNESCO REGIONAL OFFICE FOR EDUCATION IN ASIA AND THE PACIFIC
BANGKOK, 1986

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Published by the
Unesco Regional Office for Education in Asia and the Pacific
P.O. Box 1425, General Post Office
Bangkok 10500, Thailand

Printed in Thailand

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PREFACE

The school based in-service training programme for primary teachers was inspired by the demands of countries which participated in the Joint Innovative Project on In-service Training of Primary Teachers undertaken by the UNESCO Regional Office for Education in Asia and the Pacific (ROEAP), Bangkok under the Asia and Pacific Programme of Educational Innovation for Development (APEID) during 1980-1981. Participants were unanimous in proposing a continuous school-based in-service education programme as an alternative strategy for improving the quality of teaching of primary teachers. Such a proposal was firmly anchored on their belief that a school based training programme will be a vital tool in providing a linkage with other programmes conducted at the central, provincial and other levels. Likewise, shared experiences pointed to the fact that outcomes from the training programmes are less expensive than the other forms of training, more productive and relevant to the needs of the teachers concerned. Such a situation affords maximum participation of both the teachers and the school administrators, and a continuity in the training programme is assured since teachers are trained right in the school where they operate. Costs are reduced, and follow-up of activities undertaken relevant to common problems is certain.

As a concrete response to this proposal, the ROEAP commissioned five countries to conduct pilot national workshops for the purpose. The countries commissioned were Nepal, Pakistan, Papua New Guinea, Republic of Korea and Thailand.

The reports of the pilot national workshops conducted by the five countries were presented, analysed and synthesized by the Regional Technical Working Group cum Training Workshop on In-service Training of Educational Personnel convened by ROEAP in co-operation with the School of Education, Chiangmai University, Chiangmai, Thailand, from 29 October to 16 November 1985. This workshop was attended by 35 participants from 13 countries, namely, Bangladesh, India, Indonesia, Malaysia, New Zealand, Nepal,

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Pakistan, Papua New Guinea, Philippines, Republic of Korea, Socialist Republic of Viet Nam, Sri Lanka and Thailand.

It is against the backdrop of the varied experiences of the countries involved in the school based in-service training of primary teachers plus the validating thoughts of the 13 countries which reacted to the reports upon which this Handbook was developed.

In its present form, this Handbook serves as a companion volume for the APEID publication, Report of Regional Technical Working Group Cum Training Workshop on In-Service Training of Educational Personnel convened by ROEAP in Chiangmai, Thailand, from 29 October to 16 November 1985.

It is hoped that this Handbook will serve as a resource for all countries that may wish to try out a school based in-service training programme for the continuous improvement of the quality of educational personnel who will be responsible for the development of better educational programmes in the region.

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INTRODUCTION

School-based in-service training: an overview

No teacher comes out of the teacher training institutions as a 'full-fledged' teacher. Hence, there will always be a need for in-service education programmes for teachers and other school personnel. Such a truism is consistent with the continuing concern of UNESCO-APEID to search for ways and means to provide for the lifelong development of teachers through in-service education. This is so the teaching process will be a dynamic force in contributing to the improvement of education in general and of primary education in particular.

This seeming wave of anxiety over in-service education of teachers and other school personnel inspired UNESCO in 1984 to commission Nepal, Pakistan, Papua New Guinea, the Republic of Korea and Thailand, to conduct pilot/experimental studies on the use of school based in-service education programmes as a response to the growing needs and demands of social and technological changes in the society in which the schools operate. The studies/workshops devoted their attention to: (a) providing extended training to untrained primary school teachers; (b) developing new professional competencies and skills in the teachers in response to changes in the curricula; and (c) assisting teachers to solve problems of the school and community such as drop-out and under-achievement.

The five countries responded positively to this request, and in accepting the challenge, experimented on the school based in-service training (SBIT) programme with the following premises:

1. The school is the largest and most appropriate unit for educational change;
2. Teachers have the capability to develop their personal and professional capabilities in the school and in the community;
3. Teachers need to be involved in the identification and articulation of their own training needs;

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4. Individual schools have their unique needs and problems which demand unique solutions and training as well; and
5. The school is a potent tool in developing its resources, both human and material.

The pilot studies conducted in the five participating countries revolved around these assumptions, and after a year of implementation, they came out with findings which were reflected in country reports submitted to the participants of the Regional Technical Working Group Cum Training Workshop on In-Service Training of Educational Personnel in Chiangmai.

These reports were presented officially, discussed and analysed in plenary and small group sessions, both for the insights and the knowledge which they provided to different country participants in the Workshop. The combined findings were processed for publication.

As would be expected, the reports of the five countries which piloted this school based in-service education project, revealed some common elements and some variations. For instance, the training modalities fell into two types, namely, training through workshop methods, and actual exposure training modes for classroom teachers. The former was generally designed for the training of administrators, supervisors and other educational personnel while the latter was aimed at the training of classroom teachers on related areas they were teaching. Both types, however, were addressed to particular problems being met by the school in general and the teachers in particular.

Focus of the training also varied from country to country. The programmes of Nepal, Pakistan and Papua New Guinea were directed towards the training of master teachers, headmasters, curriculum advisors and other staff members; while those of Republic of Korea and Thailand, focused on the training of classroom teachers.

Likewise, the length of training varied from short periods of two to three days to longer periods of six weeks or more.

The detailed results of these comparative reports have been analysed and are now in Chapter Three of this Handbook. The vital components of the school based in-service education programme drawn from the reports, namely, (1) background (situational analysis);

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(2) objectives; (3) content; (4) strategies; and (5) evaluative mechanisms, are presented in a matrix, and analysed for comparability against each other. The evidence of similarities and differences in the findings, were enriched by the inputs of participants from other countries, and provide a valid base in the formulation of theoretical concepts on school-based teacher training programmes. These theoretical constructs are incorporated in Chapter Two.

The insights drawn for the pilot case studies, the theoretical constructs drawn from the analytical study of findings of the country reports, and presented to the workshop participants are expected to provide intellectual stimulation and dynamism to all the educational personnel who will have an opportunity to be exposed to this Handbook.

Furthermore, it is projected that such experiences in the school based in-service education programme may prove their worth as possible answers to the nagging questions of cost, relevance, feasibility and applicability in the search for the continuing education of teachers in countries with diversified needs but similarities in resources and problems.

Chapter One

EXPERIENCES AND PRACTICES OF THE COUNTRIES IN SBIT

The components of SBIT practised in the countries concerned, identified the: (a) existing situation; (b) objectives; (c) content and scope of work; (d) strategies, modes and modalities; (e) evaluation; (f) outcomes; and (g) measures taken to solve the problems.

Tables 1, 2 and 3 present data on these components and were used as the comparative analysis. The ideas implied in the country practices and experiences are clarified as follows:

Situational analysis. Every country has problems unique to its own setting, magnified mainly by its physical features and indigenous culture. Such differences in the natural and sometimes man-made factors result in variations of problems. These problems also relate closely to the progress in education, particularly in primary education.

The effort towards achieving universalization of primary education is hampered by factors that include: (a) differences in physical features or topography; (b) level of performance of pupils; (c) number of untrained teachers in the countries concerned; (d) cultural differences; and (e) general trend in the political will of the place.

The variations in the number of untrained teachers in each country result in a variety of in-service practices. Countries like Nepal, Pakistan and Papua New Guinea have a larger number of untrained teachers due mainly to difficulty of movement caused by their topography, the relatively high requirement level for admission to teaching and the cultural demands placed on their inhabitants. In-service training in these countries would be of a different nature from that in countries like the Republic of Korea and Thailand where the need for retraining is precipitated by societal and technological changes thus requiring new roles of teachers through participation in the implementation of innovative projects. Whichever is the prevailing situation, all the countries seem to feel the need for in-service training of teachers.

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In all these countries, there is a general feeling that the continuing education of teachers is necessary if they are to respond adequately to the needs of the schools. There is a recognition of the inadequacy of the initial training received by teachers in terms of meeting the present demands of social and technological change on the teacher and on the teaching/learning process.

Since in-service training requires time, effort and funds, the crucial question is what type of training will obtain the desired results and be based on the realities of the needs of the schools. The pilot studies conducted by the different countries supported SBIT for teachers. They saw the merits of this type of in-service training as a positive step in the improvement of the quality of primary education.

Objectives. The objectives for in-service training articulated by different countries in their case reports expressed a sentiment not only to improve the teacher component but also to help the schools solve their own problems through SBIT programmes. The objectives expressed in the case reports are presented in Table 1 on the following page.

Data in this Table show that while there are a number of commonalities in the objectives for the in-service training of teachers, there are individual differences in the nature and type of training teachers need in their respective countries. For instance, in Nepal, the untrained teachers require exposure to the pedagogical aspects of teaching. On the other hand, teachers in Thailand and the Republic of Korea already have the basic educational background. However, there are new roles and skills required of teachers in the form of innovative projects brought about by social and technological changes.

These differences have resulted in a wide range in the objectives set. An analysis of these objectives shows that they may be conveniently grouped into the following categories:

1. ***Improvement of personal skills.*** Communication skills, content of learning areas, attitude and values toward teaching and the teaching process; commitment and performance standards, knowledge of current issues and broad knowledge of one's mission in life as a citizen and as a professional;

Experiences and practices of the countries in SBIT

Table 1. Objectives of SBIT in five countries

Objectives	Countries involved				
	Korea	Nepal	P-kistan	PNG*	Thailand
1. Improve or upgrade competences and working capabilities		✓	✓		✓
2. Help teachers and learners identify and solve problems faced in and outside the school			✓		
3. Provide on-the-job training in other aspects of teaching profession	✓				✓
4. Raise the achievement level of pupils	✓	✓			✓
5. Reduce drop-out/repeaters		✓	✓		✓
6. Keep abreast of new developments in education for his own advancement and professional development	✓				✓
7. Meet requirements of curricular change	✓			✓	
8. Induce/orient new teachers to perform their jobs properly	✓			✓	
9. Help teachers identify and solve their own and pupils problems	✓	✓	✓	✓	✓
10. Help education personnel to identify training needs of teachers	✓		✓		
11. Develop positive attitudes and values among teachers to improve the teaching/learning process	✓	✓	✓	✓	✓
12. Encourage teachers to take an active role in improving and planning and evaluating educational programmes in their schools and community	✓				
13. Enrich teachers' experience in view of individual advancement of their profession	✓			✓	✓

* PNG = Papua New Guinea

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Table 1. Objectives of SBIT in five countries (cont'd)

Objectives	Countries involved				
	Korea	Nepal	Pakistan	PNG	Thailand
14. Better teachers' understanding of the teaching profession	✓		✓	✓	
15. Provide general education for each individual teacher					✓
16. Review the current situation of school-based in-service training programmes in the country	✓	✓	✓	✓	✓
17. Evolve suggestions for developing an effective in-service training programme	✓	✓			✓
18. Review the primary level curriculum and textbooks with special emphasis on the objectives and content for the grade	✓	✓		✓	
19. Analyse institutional objectives		✓			
20. Develop skill in developing content units and teaching modes and other related teaching materials	✓	✓	✓		
21. Develop techniques in assessing students' achievement	✓		✓		
22. Develop skill – collecting and utilizing locally available resources in teaching		✓			
23. Develop a positive attitude towards activity based as integrated teaching methodology		✓	✓		
24. Develop interest in action research	✓	✓		✓	
25. Develop faith in and respect for work	✓	✓			✓
26. Help alter children's behaviour and strategies of developing their personality		✓			✓

Experiences and practices of the countries in SBIT

Table 1. Objectives of SBIT in five countries (cont'd)

Objectives	Countries involved				
	Korea	Nepal	Pakistan	PNG	Thailand
27. Develop teachers awareness of role and responsibility in SBIT	✓				
28. Make use of SBIT to support national development goals	✓				
29. Develop skill in use of content and methodology	✓			✓	✓
30. Develop better content and method	✓	✓	✓	✓	
31. Expand directory for better SBIT programmes	✓	✓		✓	
32. Develop guidelines for the handbooks	✓			✓	

2. ***Upgrading of professional competence.*** Those related to the teaching/learning process, research orientation, problem-solving, curriculum development, planning and development of educational programmes, evaluation and others;
3. ***Knowledge and teaching of learning areas.*** Ethics education, social studies, agriculture, values education and others;
4. ***Curricular modifications.*** Changes due to rising demands brought about by social and technological change;
5. ***Problem solving.*** Areas such as drop-outs, low achievement, repetition rates;
6. ***Developing familiarity with innovative projects;***
7. ***Operation of management and in-service education programmes;*** and
8. ***Advancement of individual teacher's experience as a professional.***

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From these objectives it is obvious that all the countries concerned look upon in-service education as a potent tool for improving the capabilities and competence of teachers and educational personnel, on the one hand, and of solving the problems which were identified for the particular programmes on the other.

Likewise, the objectives suggest that, due to technological change, in-service training is inevitable and cannot be ignored in educational improvement effort. Problems will surface from time to time and it is felt that these can best be solved through a SBIT programme. In effect, there will always be a need for in-service education programmes and the school based programme may be the answer.

Content and scope of work. Table 2 shows that academic content normally prepared for pre-service training was identified as content for in-service training in Nepal, Pakistan and Papua New Guinea, where a large number of teachers are untrained. In Thailand and the Republic of Korea, however, new and innovative skills are specified in the content as a means of responding to contemporary changes in the schools. One particular skill is the planning of school based in-service training of teachers. Hence the content is focused and developed around the skills identified. The level of sophistication of the content depends on the level of teacher development of country, and is consistent with the available resources.

An analysis of Table 2 reveals a clustering according to objectives and may be grouped according to their relatedness to the following:

1. Training needs of teachers and school personnel;
2. Planning and development of school level in-service training;
3. Pedagogical concerns of teaching, philosophy of teaching, professional development in areas of child growth and development, evaluation, guidance, human relations, classroom management, principles and theories of teaching and learning and others;
4. Cognitive development in learning areas of the curriculum;
5. Identified problems and strategies for solving them;
6. School-community development, co-ordination and linkage; and

Experiences and practices of the countries in SBIT

Table 2. Content of SBIT programme in five countries

Content	Countries involved				
	Korea	Nepal	Pakistan	PNG*	Thailand
1. Training needs of teachers in teaching and learning				✓	✓
2. How to plan, develop and implement school-based in-service education programmes (cost, length of training, mode, area of training)	✓		✓		✓
3. Methods and techniques of teaching	✓	✓	✓	✓	
4. Philosophy of teaching, academic development – in major fields, other professional development including teaching and learning, or ability development related to teaching performance	✓				✓
5. Learning areas of the curriculum such as liberal arts, national security and national ethics	✓	✓		✓	✓
6. Learning areas of ethics education, social studies, science and agriculture	✓			✓	
7. Child growth and development		✓		✓	
8. Evaluation		✓	✓	✓	
9. Strategies to reduce development and repetition		✓			
10. Remedial teaching		✓			
* PNG = Papua New Guinea					

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Table 2. Content of SBIT programme in five countries (cont'd)

Content	Countries involved				
	Korea	Nepal	Pakistan	PNG	Thailand
11. Guidance and counselling		✓			
12. Human relations		✓		✓	
13. School and community development		✓			
14. Attitudes and value development		✓			
15. Classroom management		✓			
16. Formulation of objectives				✓	
17. Time and classroom management				✓	
18. Philosophy and approaches to adult learning				✓	

7. Personal development — attitudes, values, perception of teaching/learning and the learner.

While there is consistency in the objectives and content, variations exist according to the following circumstances namely: (a) situation; (b) resources; (c) culture; and (d) objectives. Countries should feel free to use their own discretion in choosing content consistent with their priority problems and with the objectives set.

Strategies, techniques, modes, modalities. Strategies for conducting SBIT programmes came in different forms and shapes, according to the different level of readiness and sophistication of the trainers and the clientele of the country being addressed. Several factors seem to have influenced the choice of the strategies used. These factors implied in the situational analysis and consistent with the objectives and content may be classified as follows:

1. Nature of problem being solved;

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2. Level of readiness of clientele;
3. Resources available;
4. Readiness of trainers in the type of strategy;
5. Convenience and feasibility;
6. Time and extent of training;
7. Costing; and
8. Topography of the country.

The strategies suggested may be grouped into the following modes:

1. ***Discussion strategies*** to include lectures, dialogues;
2. ***Practicum strategies*** including observations, demonstrations and field trips, on the spot;
3. ***Group strategies*** to include workshops, seminars, small group sessions;
4. ***Creative strategies*** including simulation, brainstorming, role playing, micro-teaching;
5. ***Systematic strategies*** to include research to experimental method, survey.
6. ***Media assisted strategies*** to include self-instructional materials, radio TV and cassette recorders.

The modes of SBIT are shown in Table 3. The countries with the greatest number of untrained teachers tend to use group sessions and discussion techniques. The choice of strategies correlates with the readiness and sophistication of the teachers to be trained, as well as the socio-economic readiness of the country concerned.

It is therefore suggested that countries should feel it their own responsibility to decide on the type of strategy to use. The strategies chosen by the countries named in this paper may very well serve as a springboard in helping other countries make a decision on the choice of strategies relevant to their own school based in-service format.

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Table 3. Strategies/modalities/methods used by five countries

Strategies	Countries involved				
	Korea	Nepal	Pakistan	PNG*	Thailand
1. Workshops	✓	✓	✓	✓	
2. Discussion methods -- teachers		✓	✓	✓	
3. Observations			✓		
4. Demonstration	✓	✓		✓	
5. Field trips					
6. Research and experimental methods	✓		✓		
7. Micro-teaching	✓		✓		
8. Self-instructional materials	✓				✓
9. Creative strategies such as simulation, brainstorming and role playing	✓				✓
10. On the spot training		✓			
11. Field work		✓	✓		
12. Practicum	✓	✓	✓		
13. Short-term training					
14. Survey			✓		
15. Small group sessions	✓			✓	
* PNG = Papua New Guinea					

Chapter Two

SUGGESTED GUIDELINES FOR DEVELOPMENT OF SBIT

Rationale

Often, in-service education has been attended to as a type of training addressed to teachers, but usually prepared by outside agencies or central offices. This has happened in the past because traditionally, in-service education has been the responsibility of experts or specialists and therefore planned and implemented by them. This process has, however, been found expensive and often unrelated to the actual needs of teachers. It takes the teachers out of the classroom, causing disruptions to the daily activities of the school, and while teachers receive some personal benefit from the activities provided, there seems to be little benefit for their school.

This is further aggravated by the fact that the demands for all these changes come faster than the in-service training opportunities and the whole problem of inadequacy and relevance continues in a cyclic order. Hence, there is a need for a type of in-service training that will respond to, or remedy such inadequacies.

In-service education must respond to the needs of individual teachers, the needs of functional groups within the school and the needs of the school as a whole. It should also promote an improvement of the teaching and learning conditions of the school. One answer is to have a form of in-service education which will happen right in the school. Because teaching and learning take place in the school setting, curriculum and teaching techniques may also be developed there and deficiencies, if any, modified right away.

For schools to be relevant in performing their role, they must plan, conduct and evaluate their own in-service training programmes according to identified needs. They must also continue to review and reassess their effectiveness, and be prepared to modify and utilize relevant strategies and modalities to deal with problems which may be met in the process.

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The **school based in-service training programme**. The SBIT programme is any form of training conducted for teachers and other school personnel in the school or school clusters which may be initiated, undertaken and supervised by competent teachers, head teachers, school supervisors and administrators, master trainers and key personnel from the school or school cluster. This may be done in co-ordination with support agencies such as teacher training colleges or national or international bodies as the case may be. It is designed to respond to local needs and intended to address problems indigenous to the school's locale. The programme and its components are designed and implemented according to some specific and unique characteristics of the schools involved.

Key concepts. Conceptually, the SBIT programme has been conceived of as an activity which is **planned by, for and with** the clients of the school for which it is to be undertaken. Initiatives may come from the school or school cluster or from partner agencies, complementary or support agencies, bodies or units, but such effort should always be in relation to the problem areas of the school concerned.

SBIT cannot operate in a vacuum. It is affected by the philosophical, psychological and sociological dimensions of the school in which it is undertaken. More specifically, such delineation may be clarified as follows:

- a) Philosophically, SBIT of educational personnel incorporates the ideology and goals of the country in general, and the school or institution in particular. Likewise, it considers the overall perceptions and aspirations of the people as they relate to education and to the accepted role of educational personnel in the education of primary pupils.
- b) Psychologically, SBIT is designed for and with teachers, pupils and administrators, and includes in its implementation all the instructional practices, methods and techniques which the school accepts, upholds and utilizes according to its own beliefs, interests and capability.
- c) Sociologically, it may draw its contents from the problems of the school in which it operates, without neglecting the problems of the society it serves and in which it naturally operates.

Suggested guidelines for the development of SBIT

The SBIT programme is a problem solving process and utilizes the steps involved in a systems approach, namely: (a) identification of a problem; (b) setting of criteria; (c) identification of alternative solutions; (d) implementation of alternatives; (e) evaluation, and (f) revision and modification if and when necessary. As such, it is logical, scientific and systematic.

Major features. SBIT has features which distinguish it from other forms of in-service training programmes provided by other institutions, agencies or bodies. These are:

- a) It is initiated by the school, or if initiated by outside bodies, it is done in co-ordination with the school and based on the needs of the teachers and the school itself;
- b) It is undertaken under the leadership of the head teacher of the school, or by the central office (Ministry), provincial office or any outside body;
- c) Involvement is a keyword in its entire process of planning, implementation and evaluation;
- d) It is everybody's concern and activities are co-ordinated and articulated according to the school's needs. It is a co-operative undertaking; and
- e) It is functional or operational and understood by all involved in the in-service training process.

Types of programmes. SBIT programmes come in different shapes and forms. All the variations can be classified into two types: (a) the individual school; and (b) the school cluster.

The **individual school** refers to the type of in-service training programme which is initiated by the school or an outside educational body for a given school. In this type of in-service training, the head teacher and teachers of the school plan and implement their training programme in accordance with problems identified in the needs assessment. Mobilization of resources is the schools' main responsibility. In the case of an outside body planning and implementing a training design for the school, leadership rests with the organizers with assistance from the teachers of the school as the clientele.

The **school cluster** on the other hand, utilizes other agencies in addition to its own initiatives. In this type of in-service training, the

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school cluster or any outside agency may initiate the assessment and planning of the programmes, but always, the teachers are the clientele. This type opens opportunities for the school cluster or outside agencies to participate in the development process of the in-service training programme. Inasmuch as the intended beneficiaries are the school and the school personnel, the type of training is still considered school based.

Steps and procedures. The experiences of the five countries concerned showed that SBIT is basically a problem solving process. As such, the following steps were evident:

Step 1. *Identification of the problem.* This is usually done through needs assessment techniques such as surveys, casual interviews and observations and a systemic analysis of the school components. Problems identified are processed, analysed and finally prioritized. The problem with the highest priority is focused and plans made for in-service training. This may be prepared by a school committee or by an outside group commissioned by the school to assist in the implementation of the in-service training programme.

Step 2. *Setting criteria.* This step is essential in that the parameters for planning must be established. This is also done co-operatively by school personnel organized for the purpose.

Step 3. *Selection of alternatives.* Using the criteria set as a springboard, alternative training proposals are scrutinized and systematically analysed against the nature of the identified needs. Decisions for implementation are then made. On the basis of the analysis, the implementation plans may now be presented.

Step 4. *Implementation.* This step is preceded by the pre-planning and planning stages which are also co-ordinated activities among the school personnel. At this point, training materials will have to be prepared, and facilitators and recipients of the actual implementation will have to be selected and informed. In short, resources both human and material will have to be mobilized.

Ideally, as soon as it is ready, the training plan may be tried out on a pilot basis in order to remedy any flaws before it is actually implemented. In this way, success is more likely and wastage in time, money and effort are minimized. As soon as the results of the tryout are processed and revisions are made, implementation may be carried out.

Suggested guidelines for the development of SBIT

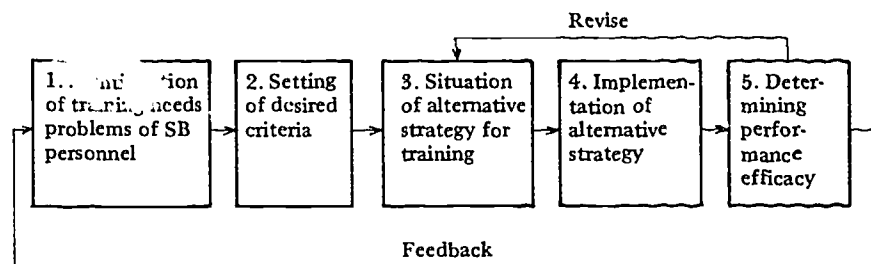
During the implementation stage all kinds of assistance must be provided in order for the plan to be implemented and envisioned.

Step 5. *Evaluation.* This is the stage wherein performance efficiency is determined. At the outset, an evaluation mechanism is to be attached to the training package. Evaluation must include both formative and summative forms of evaluation. This may be done by the members of the planning group; or another group assigned to do this task. In either case, a clear orientation on the evaluation of the training plan will be given to the evaluators before any formative evaluation is actually done by them.

In the end, it is understood that a summative form of evaluation will have to be performed and the evaluation instruments developed in co-ordination with the intended clients. Such a procedure provides continuity in the process and a continuing system of improvement.

Figure 1 presents the process involved in the implementation of a school based in-service training programme.

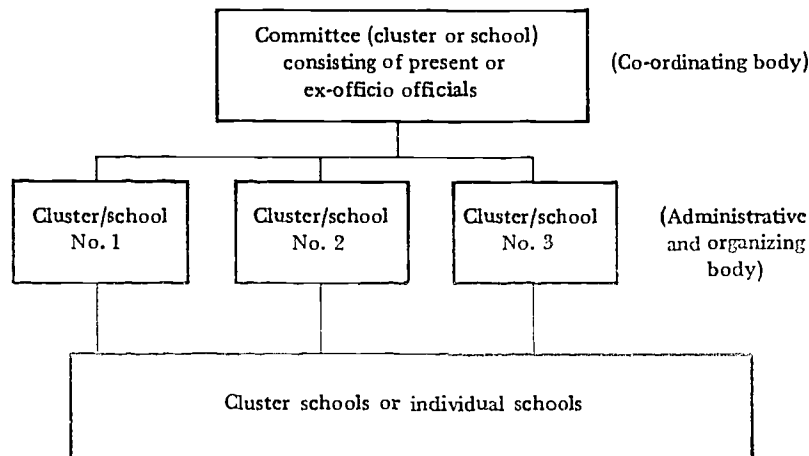
Figure 1. Process involved in the implementation of a school based in-service training programme



Organization and management. Success of the implementation of any school based in-service training programme will depend on the organization and management of the entire process that the programme is supposed to undertake. Necessarily, a sound organizational structure will involve the main participants in the entire undertaking. The people in this structure are expected to perform roles allocated to the organization so proposed. Such a set-up, drawn from the country presentations and small group discussions, is suggested in Figure 2.

School based in-service training

Figure 2. Proposed organizational structure for operation and management of a school based in-service training programme



Co-ordinating body. In this structure, roles can be inferred. The structure consists of a co-ordinating body. Its composition may include the district heads and some of the ex-officio members in the school setting. The role of this body is to set policies and to lay down expectations and targets. Performance will also be a responsibility of this body.

Administrative/organizing body. This may include the district head and the head teachers of the districts concerned. Their responsibility is to organize, plan and supervise the activities proposed for the continuing education of teachers and other school personnel.

Implementing group. Schools involved in the in-service training of teachers are part of this group. They may be individual or cluster schools.

The individual schools are headed by headmasters and composition includes head teachers and teachers. In this case, the head teacher co-ordinates the activities of the individual schools or classes, in his change.

The school cluster however is a group of schools within a district which are grouped and referred to as a cluster, a zone or a district on the type of grouping made for mutual assistance and co-operation. Within this bigger concept of organization, schools

Suggested guidelines for the development of SBIT

included are referred to as cluster schools. Figure 2 shows this concept.

The idea implicit in the organization is that, a co-ordinating body facilitates the operation and management procedures. Resources are mobilized and roles and responsibilities clearly identified.

On the other hand, if schools opt to conduct their own SBIT within the school, a similar co-ordinating body is needed in order to facilitate policy decisions. It may be quite difficult for the teachers to be the clientele and the decision-makers as well. An overload of roles may cause confusion and there is always the possibility that some responsibilities may be neglected.

Whichever type is used, it must be organized to ensure efficient and effective management and this same structure may be used to establish a feedback monitoring system which will be essential for the proper evaluation of the entire operations and management of the programme.

Recommendation for developing school-based in-service training of teachers. The success of the SBIT of primary school teachers is based upon certain conditions which have been put in the form of recommendations in the case reports of five countries.

All teachers involved in national workshops on school based in-service training regard school based in-service training as useful, they feel strongly about the role they should play in it; some teachers believe it enhances their professional development; and most value the contact that occurs with other teachers and educational personnel.

Teachers have a range of needs for in-service education which vary significantly depending on experience and school location. Highly rated needs mentioned are skills in curriculum planning and development, communication and interpersonal relations and general teaching methods. Action research associated with school based in-service education in a country indicates that in-service training can work and is a powerful tool for the professional development of teachers.

Teachers can be helped to become reflexive classroom researchers and they respond positively to that difficult challenge.

School based in-service training

Certain conditions must be met for developing such successful SBIT. A summary of some suggested recommendations for developing successful school based in-service training is given below.

Scope. In-service training and education is essential to the good professional development of teachers. It should be both functional and directed towards the personal growth and enrichment of individual teachers.

Type. School based and school focused in-service training are complementary: which one is chosen depends on purpose, priorities and context. School focused in-service is recognized as combining the strengths of school based initiatives and external expertise and training courses. School based in-service can be part of a scheme of school focused developments.

Participants. In-service training should not be an imposed, centralized, top-down requirement. Input into organization and topics to be discussed should come from all areas of the education system, including the provinces.

Teachers should be involved in both the preparation and organization. However, the responsibility for this should not fall totally upon teachers. Supervisors and headteachers should have a major part to play.

Topics. In-service topics should be based on teachers' needs, interests and problems.

Research is needed to identify these so that relevant materials can be prepared by the National Department, provincial officers and the schools themselves.

There is a need for more subject content in-service training in order to improve teachers' depth of knowledge.

School organization. There should be changes in time-tabling, room use and teacher specializations to make SBIT more effective.

- a) In-service sessions should be time-tabled as part of a teachers' daily work;
- b) The potential of encouraging 'subject' classrooms should be explored so that all the relevant books and materials of a particular subject can be gathered in one place and subject in-service more easily organized there;

Suggested guidelines for the development of SBIT

- c) Teachers should not be expected to teach in more than two subject areas. This will help them to become proficient in these areas and to spend more time improving their teaching skills.

Leadership. There is a need to train in-service experts who will then pass on their skills to teachers responsible for school based programmes.

In-service management skills workshops should be held for school personnel (headteachers and in-service co-ordinators) at primary and secondary level. School in-service co-ordinators should have fewer extra-curricular duties in order to have more time for the organization and preparation of effective in-service training. These duties should be distributed evenly amongst the staff.

Resources. Greater use should be made of the resources (personnel and materials) available through Educational Resource Centres and the Curriculum Development Centre /Unit.

Relevant education ideas, teaching methods and in-service strategies should be disseminated more widely, possibly through ERCs, through supervisors and through their incorporation in formal in-service and pre-service courses.

Incentive and reward systems. Reasonable incentives or reward systems should be instituted. Professional as well as administrative support should be extended to schools and school clusters which are responsible for the implementation of the programme.

Funding. Financial support should be provided for in-service education programmes. Such provisions are keenly needed if (i) suitable resources are to be developed; (ii) multi-media initiatives developed; and (iii) competent people trained.

A handbook. Clear guidelines on the organization and presentation of school based in-service workshops need to be presented in the form of a teachers' handbook. The handbook should also identify problems and barriers and suggest solutions to these.

The subject in-service handbooks which have already been produced by a country tend to be just guidelines for curriculum implementation; there is a need for a more general in-service training handbook.

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One final suggestion pointed to the difference between school based and school focused in-service training at the national workshop held in a country. This latter scheme appears to recognize the need for external support for school level initiatives. This seems to be a complementary feature, for the promotion of the school based in-service training of teachers.

Chapter Three

CASE REPORTS OF FIVE COUNTRIES

This chapter present summaries of case reports received from Nepal, Pakistan, Papua New Guinea, Republic of Korea and Thailand.

Case Report 1: Nepal

Background. The issue of achieving universalization of primary education by the year 2000, to which Nepal is committed; the persisting problem of quality improvement; the existing in-service training gap in teacher education; and a host of such problems including the ever-increasing number of untrained teachers in the primary teaching force have been the major concerns of educational planners and teacher educators of this country. Various measures have been adopted and executed by the Institute of Education and by related agencies of the Ministry of Education and Culture, on all possible fronts of teacher education and women's education but the percentage of trained primary teachers still stands at a low 36 per cent today. It is not surprising therefore if the quality of primary education has not registered a significant improvement on a national scale.

One factor that is hoped to effect favourable changes in this educational situation is undoubtedly a short-term practical training programme based on the realities of the schools.

Rationale. The need for a school based training programme is strongly felt due to the large number of untrained underqualified teachers.

It can be gleaned from the table that about two-thirds of the teachers are untrained. With such a large number of untrained teachers the teaching/learning process has been affected, resulting in low academic achievement. Parents have also felt that inasmuch as the children were not learning very much in school, getting them to help in the homes and on the farms would be more beneficial. This has resulted in a big drop-out rate.

School based in-service training

Table 4. Number of trained teachers

Regions	Total No. of teachers	No. of trained teachers	Percentage
Eastern Region	8,179	2,926	35.8
Central Region	8,990	3,444	38.3
Western Region	8,399	2,871	34.2
Mid Western Region	4,046	1,397	34.5
Far Western Region	2,636	887	33.6
National level	32,250	11,525	35.3

With the increasing number of classes widely scattered, some in difficult terrain, and with the problem of financing, there is a need for a kind of in-service training that will respond to the challenge posed by the need for trained teachers. Because of the problem, an instant solution is needed, which SBIT can ably provide.

Objectives. A workshop was convened in the hope of finding a solution to the many problems described above. One aspect of the workshop was to define the direction for developing the SBIT programme. The following were the general objectives that guided the workshop:

1. To review the current situation of the SBIT programme in the country; and
2. To evolve suggestions for developing an effective in-service training programme.

The specific objectives identified were to:

- a) Review the primary level curriculum and textbooks with special emphasis on the objectives and content for each grade;
- b) Develop skills in using appropriate teaching methods, techniques, and educational materials;
- c) Analyse instructional objectives;
- d) Develop skill in producing content units and teaching models and other related teaching materials;

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- e) Identify appropriate techniques of assessing student achievement;
- f) Develop a positive attitude towards activity-based and integrated teaching methodology;
- g) Develop skill in collecting and utilizing locally available low-cost resources in teaching;
- h) Develop an interest in action research;
- i) Develop faith in and respect for work; and
- j) Help understand children's behaviour and strategies of developing their physical, intellectual and social personalities.

Training modes and strategies. The quality of teachers is the most important determinant of the quality of education. Education system designers and managers have realized this factor, and numerous types of programmes have been designed and used to raise the quality of teachers. Teacher training is, definitely, the one programme which is in the widest use.

A large number of modalities of training are in operation. An 'On-the-spot' primary teachers training programme conducted by the Institute of Education can be regarded as an example of a long-term school based in-service training. Providing short-term training to the feeder schools in a Resource School is another model of school based in-service training that is being used by the Seti Project in Doti district. Organization of short-term training for its own teachers by a particular school is the third modality of school based in-service training.

There are two types of mechanism for the third modality. The first is an economy type in consideration of the existing available resources at the district level and the other one is a kind of mechanism which needs extra resources.

The models are presented below:

Mechanism model (A): In this model, the SBIT programme is conducted in two ways:

- a) **Single-school model.** High schools with primary classes attached to them should be engaged in conducting SBIT programmes on their own. This helps the schools to take up

School based in-service training

the responsibility in this connection and will help the concept of SBIT implemented at least in high schools with attached primary classes. The supervisors should provide help in case of necessity only.

- b) **Cluster school model of lower secondary and primary schools.** Teachers of lower secondary and primary schools within one hours' walking distance should be included in the SBIT programme.

Mechanism model (B): Resource centre type. In this type, a school is identified as the resource centre for training where teachers from satellite schools can come without much difficulty to get training.

The agency mainly responsible for the preparation of SBIT in both models is the District Education Office. In Model 'A' the supervisor with the help of experienced teachers and other available expertise conducts a training programme in different parts of the district. For this they have to select a school as the venue. The supervisor should move from one area to another and conduct SBIT programmes.

For Model 'B', a permanent body should be created under the DEO, which will consist of the District Education Officer, supervisor, teacher trainers, and experienced teachers of the local schools. This unit should be made responsible for conducting the SBIT programme. There should be at least two officers with responsibility for conducting the SBIT programme in the district.

This unit is mobile in nature and arranges SBIT programmes in resource centres, where teachers from satellite schools can participate.

The Institute of Education, the campuses and the Training Division of the Ministry of Education and Culture should provide short-term orientation to the District Education Officer and supervisors on SBIT programmes. They in turn orient headteachers, train local teachers and school managing committee members of the district. The supervisor has also to survey the teaching status of individual teachers through class observation. They should identify the individual felt needs of the teachers.

For an effective training programme, the involvement of agencies becomes necessary. Though the District Education Officer is

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ultimately responsible for the operation of the SBIT, the following agencies are also involved in the programme:

1. Curriculum, Textbook and Supervision Development Centre;
2. Institute of Education;
3. Research Centre for Educational, Innovation and Development;
4. Janak Education Materials Centre;
5. Education for Rural Development Project; and
6. Primary Education Development Project.

To bring about the desired results, workshops were conducted in the schools based on their needs and problems. Workshop sessions involved a variety of activities such as the following:

1. Lectures by the headteacher, supervisor or any expert.
2. Demonstrations to bring about the real interpretation of what is desired.
3. Practicum activities.
4. Field work including strategies like observation, conducting surveys, interviews and case studies.

Case studies. In response to a need for an effective SBIT, three approaches were tried:

1. *On-the-spot primary teacher training*

In this training the teacher trainees were observed in their own schools and the training session spread throughout the semester. It also utilized distance learning by radio and the latest addition, a package of lessons prepared by a task force of teacher educators. This campus mechanism, though designed for excellence in teacher education, was found wanting.

2. *Resource Centre based*

This is another alternative programme for in-service training. This kind of in-service training is being tried out successfully in areas under the SETI Project in Doti, Bajhang.

In this scheme four to seven satellite schools form a cluster around one Resource Centre. The distance between resource centres and their satellite schools is within three hours walking distance.

The major function of the Resource Centre is a monthly meeting held on Fridays. It provides a two-way communication

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because topics are noted down in the discussion and follow-up in the monthly supervision programme.

This SETI project has taken in more than 900 teachers and leaders to participate in the various programmes.

Examples of the types of programmes are:

- a) 3-5 days training for teachers who supervise the various activities of the satellite schools;
- b) 4-5 days workshop every year for Resource Centre headmasters;
- c) 7 days refresher training for the teachers of satellite schools and the Resource Centre; and
- d) 10 days basic training programme for teachers of satellite schools.

3. *Short-term training*

This is the training done by the school for its non-teachers.

Namuna Machhindra is a school with a unique organization in that it has two district segments – the private and public sector. It has the distinction of having a few professional educators.

In this school the School Managing Committee (SMC) appointed a sub-committee to conduct the training. The sub-committee decided that the training would achieve the following objectives to:

- a) explain the grade-wise objectives of all subjects;
- b) discuss the possible effective methods of teaching different subjects; and
- c) develop materials to be used in teaching different subjects.

Content. The content of the training programme is based on the findings of surveys, discussions, and observations of principals, supervisors, and other educators.

Considering the 64 per cent of teachers who did not have theoretical background and the 36 per cent who needed to be upgraded in their competencies, skills, values, and attitudes, the following were considered as the basics for SBIT.

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1. Methodology and techniques of teaching
2. Child growth and development
3. Preparation of low-cost instructional materials
4. Teaching of the different subjects in the curriculum
5. Evaluation
6. Strategies to reduce drop-out and repetition
7. Remedial teaching
8. Guidance and counselling
9. Human relations
10. School and community development
11. Attitudes and value development
12. Classroom management.

The training materials used were the curriculum and textbooks. In addition to this, teachers guides, curriculum guides, teaching units, teaching modules, training manuals, hand-outs and charts were used.

Evaluation. Evaluation is indispensable in any training programme. At the end of every training session, time was devoted to an evaluation of the programme. Questionnaires and checklists were used and an analysis of the instruments indicated that the participants had less interest in the theoretical and more on the practical. Observations and analysis of records like achievement, drop-out rate and others were helpful guides for evaluation.

It was also revealed that the training of teachers in their own schools is a popular approach.

Follow-up. A regular monitoring was done in addition to supervision. The outputs observed became the inputs for the next refresher course.

Recommendations. It was recommended that:

1. More physical facilities and equipment should be provided;
2. Funding should be increased to allow for a more frequent supervision and reproduction of materials;
3. A minimum number of training sessions should be acceptable for earning some training allowances and further training at campuses;

School based in-service training

4. Salary increments should be given to those engaged in the training. Other incentives and rewards should also be considered; and
5. A sharing of materials should be encouraged.

Case Report 2: Pakistan

Background. The system of training and selecting teachers is fundamental in the development of education in any country. In view of this, any attempt to see the progress of education should start by knowing the teachers' qualifications as they enter into the system.

As a backdrop, the existing requirement to become a teacher in Pakistan is simple matriculation. Student teachers receive nine months training and are then awarded a Primary Teaching Certificate (PTC). The training emphasizes theory more than practice. Such training is considered inadequate and it is generally felt that it should be supplemented and enhanced.

The rapid expansion of primary schools and the non availability of qualified teachers in remote areas, especially for girls' schools, have given rise to the problem of unqualified teachers who cannot respond to the changing demands of education, and to the challenges met in the classroom where the textbooks are not easily understood by the teachers. As a result, both teachers and pupils face the problem of inadequacy. The situation demands remediation through the proper in-service education of teachers.

Rationale. Inspired by the existing conditions, and keeping in mind the mission of the schools, it was conceived that teachers of all categories in general, and the primary school teachers in particular, be trained to make the teaching/learning process effective through SBIT.

It is hoped that the teachers' problems, such as teacher, teacher relations, school-community relations, low achievement level of children and high drop-out rate, will be solved.

Objectives. The training programme was designed to achieve the following objectives to:

1. Provide on-the-job training to primary school teachers in order to improve their teaching competencies;

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2. Identify the training needs of teachers;
3. Identify problems faced by the teachers in and outside the school;
4. Identify learners' problems;
5. Help teachers and students find solutions to their problems;
6. Improve teaching/learning processes through better class management and better use of audio-visual aids;
7. Change the image of teachers as learners, since they are usually regarded as persons knowing everything; and
8. Reduce drop-out rates among students at the primary level.

Training modes and strategies. SBIT is initiated by either the Ministry of Education or the Provincial Education Department. They in turn train master trainers whose responsibilities are to train the teachers in their respective schools.

In the case of cluster schools, the training model is the selection of a Central School to which five schools are attached. The Central School serves as the Resource Centre where the services of a Learning Co-ordinator are provided and made available to the cluster schools. The Learning Co-ordinator goes to the school and trains the teachers on their needs and problems. If necessary, he takes them to the Resource Centre.

SBIT is enhanced through the use of lectures, demonstrations, practise, observation and surveys.

Content. The SBIT project workshop held in November 1985, identified the following aspects to be considered:

- a) A comparison of the training costs;
- b) Length of training;
- c) Mode of implementation – whether the supervisor can take over this role or some new staff shall have to be appointed for this purpose;
- d) Areas of training; and
- e) Replicability of the programme.

Case studies. SBIT is an innovative programme for the retraining of primary school teachers. To bring this out the following activities were carried out:

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I. Experimental schools

In this pilot programme four schools were selected in each of three provinces. In each province, the schools were selected on the basis of the following criteria:

1. Two schools each in rural and urban settings;
2. One boys' and one girls' school in both rural and urban settings;
3. Schools having two teachers for five classes and with inadequate buildings; and
4. Schools having five or more teachers with adequate buildings.

The training programme was restricted to the teachers who were:

1. Teaching language (Urdu) to Class I; and
2. Teaching mathematics to Class III.

The following schools were selected for the SBIT study:

1. G.P.S. Gulaga is a typical rural school situated in a village about 25 kilometres east of Abbottabad;
2. G.P.S. Nathiagali is a school situated in the picturesque valley of Galliat;
3. G.P.S. Doong is a village school that lies between Abbottabad and Nathiagali; and
4. G.P.S. Havelian is a summer school situated 18 kilometres from Abbottabad towards the south on Shah-Rahe-Resham.

II. Master trainers' workshop

As an initial step a four-day master trainers' workshop was organized under the instruction of the Federal Ministry of Education Curriculum Wing at the Education Extension Centre, Abbottabad in March 1985.

Eight master trainers were trained, four for mathematics and four for Urdu. These master trainers were equipped with the latest teaching techniques and methodology, group discussion modes and ideas on the content of textbooks and curriculum materials, as well as child development principles and behaviour in the classroom situation and all other aspects which were thought to be contributory towards an effective teaching/learning process.

III. Field work

The master trainers were divided into four groups each going to a different venue. They surveyed the locality from different angles keeping before them the various aspects of the locality, exploring the catchment area, population, school growing population, school building, teacher parent relations, community behaviour, socio-economic conditions and the literacy rate.

The observations and data gathered provided the basis on which the groups initiated their activities. Pre-tests were administered to the concerned classes and the results used as baseline-data.

After observing the teachers, each master trainer discussed the problems and weaknesses of the teacher and helped him to overcome his difficulties and problems.

The master trainers also delivered model plans during the workshop and the teacher-trainees observed the teaching of the master trainers.

Discussions were held on teaching/learning problems and techniques in order to understand the difficulties of slow learners and bring them to the desired level; ways of attracting students to school; and how to inform parents about the problems of teachers and students.

Evaluation. To determine the strengths and weaknesses of the programme, evaluation was done through observation of teachers at work, testing of academic achievement (post-test compared to the pre-test) surveys, and interviews. On the basis of the feedback, plans were made for the next SBIT.

Recommendations. It was recommended that:

1. More school buildings be provided to take care of the rapid expansion of classes;
2. Extensive supervision and guidance be availed of, for the development of school based in-service teacher training programmes;
3. More instructional materials be provided; and
4. Administrative support be extended to schools and school clusters.

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Case Report 3: Papua New Guinea

Background. Papua New Guinea has long recognized the importance of school based in-service training for teachers. Today, schools are required to organize regular in-service sessions for their staff, and school in-service co-ordinators are designated. In view of this, every province is required to organize the equivalent of a National In-Service Training (NIST) week each year, either as a block or staggered over several days. In addition, the development of improved support services is currently being emphasized by the National Department of Education since it is recognized that formal regulations and enthusiasm alone are not enough to stimulate effective in-service.

As a concrete step in this direction the National Workshop on SBIT provided invaluable assistance in planning for the future since it stimulated the participants to make a realistic assessment of needs. This is supported by the National Department of Education which has provided policies and directions to all schools.

In this connection, problems and barriers to effective SBIT are being identified, and strategies developed to overcome them. In-service networks are also concurrently being developed into a collaborative venture between the national and provincial governments and education resource centres are being established.

In most provinces there is a need for greater co-ordination between persons and the bodies involved in in-service work. Most provinces still need to develop formal ongoing in-service networking structures that can be used yearly, and to provide professional technical assistance from headquarters to plan effective in-service programmes for teachers. Most provinces also need financial help in order to plan and conduct good in-service sessions.

It is anticipated that the efforts exerted in carrying on a school based in-service training programme can help realize, to a great extent, the improvement of the quality of education.

Objectives. The National Department of Education and the Faculty of Education at the University of Papua New Guinea (UPNG) conducted a two week national workshop on the topic of school based in-service training of teachers in July 1985 at Port Moresby.

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The objectives of the workshop were to:

- a) Review the current situation of school based in-service teacher training initiatives in the country;
- b) Make an in-depth study of specific experiences, with reference to their content and methods;
- c) Evolve recommendations for expanding and developing SBIT; and
- d) Develop guidelines for the preparation of a handbook on SBIT.

Basic modes of school based in-service training strategies

There are two kinds of training undertaken for SBIT. These are (1) training initiated, implemented, and co-ordinated by the school or school cluster; and (2) training in the school with the design, plans and programmes coming from the National Department of Education, Provincial Committee or any other educational body.

For instance, in the implementation of the new curriculum, the National Department of Education took the lead for the school or school cluster. When schools or school clusters had problems requiring attention, the head-teacher and/or teachers were expected to work out a plan for SBIT based on their needs assessment.

NIST Week, which first started in 1966, was implemented to improve the skills of community school teachers. One week was set aside when teachers were freed from duties in order to meet in their schools, in groups, to share ideas and look at common problems. The meetings were not compulsory and were directed by the National Department of Education, there being no Provincial Governments at this time. On the whole these early NIST Weeks met with mixed success. They were usually based on a theme, which was a sound idea as it established goals and correlated topics, but the themes were sometimes obscure and often ignored. The activities, which generally had clear objectives, were soundly structured and were based on active participant involvement in small groups.

Special initiative and support for school based in-service training strategies. Education Resource Centres (ERCs) were set up to extend the use of learning materials and improved teaching methods to

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community schools in the provinces. ERCs are to be extension centres for teacher training, local curriculum development and teaching materials production and lending.

Teachers of Papua New Guinea have increasingly been trained in the use of school broadcast programmes. It is noted that a radio multi-media in-service course can (1) reach all teachers through radio; (2) be recorded and listened to at any time of the day or night on audio cassette and repeated if necessary; and (3) be produced by experts supplemented by practitioners. It is reported that 49 out of every 100 teachers interviewed said that they had received some training in the use of school broadcast programmes.

These modes of training are regularly enhanced through workshops, demonstrations, lectures, small group sessions, and other activities organized by the National Department of Education, the University of Papua New Guinea and teacher training colleges.

Content. Teacher in-service training is part of the implementation strategy of special curriculum projects such as the Community Schools Agriculture Pilot Project (CSAPP) and the Secondary Schools Community Extension Project (SSCEP). The main emphasis is on adopting new teaching methods, so that subject skills can be applied through practical activities, such as gardening. School based in-service training has thus given focus on the following:

1. Teaching techniques and methodology;
2. Child growth and development;
3. Identification of needs (needs assessment);
4. Selection and formulation of objectives;
5. Evaluation tools;
6. Time management;
7. Philosophy and approaches to adult learning;
8. Classroom management;
9. Human relations; and
10. Teaching of the different subjects in the curriculum.

Case study. As a complimentary measure an in-service training course in planning and running a SBIT course was conducted. The objectives was that at the completion of the training, each inspector or curriculum advisor should be able to do the following:

- a) Evaluate the effectiveness of in-service training within a school;

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- b) Describe a list of alternative methods for teachers/head-teachers to use;
- c) Plan a systematic training approach for his own use in the field.

Written assignments were given. In the first assignment, the participants were asked to describe the best in-service course they had attended. In the second assignment they were to prepare a plan for an in-service programme for one topic that they would take up for their SBIT programme.

The In-Service Training Course assisted the participants to carry out several case studies. This involved (i) in-service simulation to identify effective organizational requirements for SBIT; and (ii) preparation of guidelines for an in-service 'operation' handbook.

Evaluation. Evaluation was done through a questionnaire, interviews, observation and informal discussions. Data derived from these evaluation instruments provided inputs for future SBIT programmes.

Table 5. Evaluative techniques

Evaluative techniques	Countries Involved				
	Korea	Nepal	Pakistan	Papua New Guinea	Thailand
1. Questionnaire and checklists and opinion	✓	✓		✓	
2. Observation and analysis of work	✓	✓	✓	✓	
3. Testing			✓		
4. Interview	✓		✓	✓	
5. Systems analysis (input-process-output)	✓				✓

Recommendations. The recommendations for developing school-based in-service training were as follows:

Scope. In-service training and education is essential to the professional development of teachers.

It should be both functional and directed towards the personal growth and enrichment of individual teachers.

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Type. School based and school focused in-service training are complementary. Which one is chosen depends on purpose, priorities and context.

School focused in-service training is recognized as combining the strengths of school based initiatives and external expertise and training courses. SBIT can be part of a scheme of school-focused developments. At present the emphasis should be placed on the development of school focused in-service training since this model accepts the necessity of external support for initiatives at the school level.

Participants. In-service training should not be an imposed, centralized, top-down requirement. Input into organization and topics to be discussed should come from all areas of the education system, including the provinces.

Teachers should be involved in both preparation and organization of school based in-service training. However, the responsibility for this should not fall totally upon teachers. Inspectors and head-teachers also have a major part to play.

Topics. In-service topics should be based on the teachers' needs, interests and problems.

Research is needed to identify these so that relevant materials can be prepared by the National Department, provincial officers and the schools themselves.

There is a need for more subject content in-service training in order to improve the teachers' depth of knowledge.

School organization. There should be changes in timetabling, room use and teacher specialization to make SBIT more effective.

- i) In-service sessions should be time-tabled as part of a teacher's daily work.
- ii) The potential of encouraging 'subject' classrooms should be explored so that all the relevant books and materials of a particular subject can be gathered in one place and subject in-service training more easily organized there.
- iii) Teachers should not be expected to teach in more than two subject areas. This will help them to become proficient in these areas and to spend more time improving their teaching skills.

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Leadership. There is a need to train in-service experts who will then pass on their skills to teachers responsible for school based programmes.

In-service management skills workshops should be held for school personnel (headteachers and in-service co-ordinators) at primary and secondary level. School in-service co-ordinators should have fewer extra-curricular duties in order to have more time for the organization and preparation of effective in-service training. These duties should be distributed evenly amongst the staff.

Formal courses. The value of existing in-service courses was recognized since they are able to respond quickly to perceived needs, are flexible and do much to upgrade teachers' skills and qualifications.

Resources. Greater use should be made of the resources (personnel and materials) available through Education Resource Centres, CSAPP/SSCEP, NIST Week activities and the Curriculum Unit.

Relevant education ideas, teaching methods and in-service strategies developed by SSCEP and SCAPP should be disseminated more widely, possibly through ERCs, through inspectors and through their incorporation in formal in-service and pre-service courses.

NIST Week activities should be planned well in advance and their themes publicized in the schools.

Papua New Guinean multi-media in-service programmes should be developed. Production of local courses is necessary because it is often difficult to transfer internationally produced materials. This could be a collaborative venture between ERCs and the Curriculum Unit. Tapes could be made which show teachers how to use syllabuses or give them in-depth knowledge in specific content areas. Interviews with experts in different topics and back-up tapes for written materials, such as the SSCEP in-service training booklets, would be especially useful and could be produced quite quickly. The possibility of producing educational video cassettes should also be explored. Multi-media resources could be circulated through the ERCs.

Funding. There is an urgent need for increased funding for all types of in-service training if suitable resources are to be developed and competent people trained.

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Funds are especially necessary to develop multi-media initiatives and NIST Week activities.

Provincial In-Service Training Officers need guaranteed financial support from Provincial Governments.

International transfer of ideas. In the light of the needs, there is a need to critically consider any proposed international transfer of in-service initiatives. The decision whether to use a particular idea or scheme should be based on all relevant factors; educational, financial, political or social in relation to Papua New Guinea.

A handbook. Clear guidelines on the organization and presentation of school based in-service meetings need to be presented in the form of a teachers' handbook. The handbook should also identify problems and barriers to effective school based in-service training and suggest solutions to these.

The subject in-service handbooks which have already been produced tend to be just guidelines for curriculum implementation; there is a need for a more general in-service handbook.

Conclusion. One major conclusion of the workshop points to the difference between school based and school focused in-service training. The latter appears to recognize the need for external support for school level initiatives. This seems to be an important component.

Case Report 4: Republic of Korea

Background. With today's rapidly changing society and the knowledge and information explosion, the traditionally fixed roles of teachers must inevitably change. Teachers must continuously develop in their profession, and new strategies for teacher training must necessarily be established. This trend has introduced new principles for the continuing education of all educational personnel and new strategies to meet the needs of teachers and of communities as well.

This situation has highlighted the need for the further education of teachers through on-the-job training or in-service education programmes. Among the three ways of carrying out in-service teacher education, namely the centre based, school based, and individual based, the centre based programme was given major attention because it was the only channel through which teachers could be

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awarded an advanced level certificate. This brought about a crucial problem of making in-service programmes a means of promotion rather than professional growth. The school based and individual based programmes were therefore neglected. However the need for continuous professional development, focused on the improvement of the teaching/learning process in the classroom, have shown school based in-service training to be necessary.

Objectives. With the need for SBIT realized, two school based in-service education workshops were conducted by the Chonbuk Provincial Board of Education in Incheon City and in Jeonju.

The Incheon City workshop for the SBIT of primary school teachers was organized by Inha University, Incheon City in collaboration with Incheon City Board of Education in December 1984.

The Incheon City workshop aimed to develop the following:

1. Awareness of the role and responsibility of the school head-teachers in implementing SBIT;
2. Knowledge of approaches to defining the schools' needs in teaching, learning and administration;
3. Strategies to enable teachers to solve problems;
4. Abilities and skills to plan and implement SBIT; and
5. Abilities and techniques to evaluate SBIT programmes.

The second workshop was organized by the Chonbuk Provincial Board of Education jointly with the Korean National Commission for UNESCO, also in December 1984. The workshop was attended by 31 educational pioneers consisting of senior teachers, head teachers, supervisors, and university professors.

Chonbuk workshop aimed to develop in participants the following:

1. Awareness of the current status of SBIT programmes;
2. Knowledge of specific experiences related to content and method; and
3. Ability to develop guidelines for expanding SBIT in the context of new challenges for social change and the implications for national development.

Methods of training strategies. Incheon City is just like any ordinary city where the schools are big with at least 60 classes and 70

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teachers. The SBIT is school based in the sense that the training programme was organized for the teachers by the teachers and/or head-teachers to respond to their problems and needs.

The Chonbuk area differs a little from the Incheon City model for the reason that there are small schools which have no capability to take care of their own training. In view of this situation SBIT can start from the school or it can be planned by the provincial office, or any other educational body that can respond to their needs.

Various strategies and techniques such as research, lectures, seminars, discussion, workshops, demonstration teaching, micro-teaching, laboratory work, and field trips were used.

Teachers, during the SBIT, were given the opportunity to become competent in operating equipment and machines.

Lectures were given by experts after which workshops and group sessions followed.

Demonstrations and micro-teaching were used in the teaching of basic teaching techniques and methodology.

Content. The content of the programmes depends on the focus given to specific planned competencies. The two experimental classes dealt with content related to marine education and agriculture.

In Incheon City the content was the curriculum for marine education and the different approaches and methodologies of teaching the subject.

In Chonbuk province the agriculture-related content centred on the utilization and operation of equipment, trends, evaluation of skills, and basic skills of teaching techniques and methodology.

Case studies. Three case studies were conducted. These were (1) marine study education in Incheon City; (2) effective teaching of agricultural subjects to improve the knowledge and techniques on farming; and (3) critical issues in mathematics and science in Chonbuk province.

The objectives of the marine study education training were to upgrade teachers in inquiry and teaching skills, integration of marine study education in the curriculum, preparation of model plans, and production and trial of materials.

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Notable accomplishments for the project included: the development of marine study curriculum for primary schools; the basic inquiry approach model; 131 model lesson plans for marine study education; 251 teaching kits for marine study education; 662 teaching aids for marine study education such as photograph, slides, charts, etc; and related research studies.

For Chonbuk province the study was on the effective teaching of agricultural subjects in order to improve the knowledge and techniques of farming. This was intended to contribute to the agricultural development of the rural province.

The study focused on the recently developed techniques to grow plants and breed livestock, skills and techniques of farm machines, and the latest knowledge, skills and techniques of processing farm products.

Another in-service training programme in Chonbuk province was the development of a five step programme of critical issues in mathematics and science. The programme is self-instructional. The study made clear the following steps:

1. Identification of the terminal skill;
2. Diagnosis of the entry skill;
3. Task analysis;
4. Instructional design; and
5. Evaluation of instructional effectiveness.

Follow-up. Follow-up activities comprised monitoring, observation, and interviews. On the basis of the results of the follow-up, plans were again formulated.

Evaluation. Evaluation is a systematic approach of making judgements for the improvement of the programme. The evaluation of the training programmes centred on context, input, process, and product.

Evaluation of context zeroed in on the desired and actual conditions realized. This was considered essential as a basis for developing future programmes. Input evaluation was concerned with the material and human resources input in the training. Process evaluation looked at the planned design and evaluated the extent to which it was realized. Product evaluation was concerned with the comparison of the output to the objective set.

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With the use of checklists, observation, interviews, surveys, and a questionnaire, the findings helped in making decisions for future plans.

Recommendations. It is recommended that:

1. Professional service for material development be provided;
2. The exchange of skills and interchange of materials already developed be extended to other schools;
3. Financial support should be given for in-service education programmes;
4. Reasonable incentives and reward systems be instituted; and
5. The reduction of loads for teachers be considered.

Case Report 5: Thailand

Background. The Office of the National Primary Education Commission has embarked on some innovative projects which have expanded the roles of the school to provide for some profound impacts on community development. These projects are the school lunch project, which aims at the improvement of nutrition practice, and the facilitation of children's readiness to prepare those who do not speak Central Thai at home. While the school lunch project is upgrading the physical readiness of the children, the facilitation of the children's readiness provides a vital basic skill for learning. It is anticipated that, if the readiness project is successfully implemented, children who have gone through the programme should be able to comprehend teachers' instruction and effectively communicate with the teachers. With these two projects, the effects on upgrading the quality of education are expected to be tremendous. Yet the total contribution depends upon the degree to which the projects have been satisfactorily conducted. Unfortunately, according to a follow-up of these innovative projects, it was reported that the desired results were not achieved. Hence, the main purpose of the project in some locations was found wanting. It is, therefore, vital to look into the sources of the problems and some intervention seems necessary, one of which is a school based training programme.

It was anticipated that teachers who had gone through such school based in-service training would properly implement the projects in their schools. With the successful implementation of these new developmental projects, the outcomes would contribute to the higher quality of primary education in the entire country.

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Rationale. It was felt that a very important and direct benefit from SBIT will be the smooth co-ordination among agencies concerned in implementing various projects. It will provide opportunity for those who are working at the central, provincial and local offices to work together in responding to the local needs. These good working relationships will result in a better accomplishment of the projects. In addition, the cost of training is minimal compared to the traditional approach. It will also provide a valuable opportunity for educational administrators, head teachers and teachers to work hand-in-hand in solving their own problems.

Another benefit from the programme on the economic aspect is that all experiences gained from the programme can be directly utilized in the trainees' schools. It is noted that the cost/benefit ratio is substantial since the total benefits are high and the cost has been reduced. Besides, when teachers have successfully implemented activities in the project, their attitude towards work will be reinforced, their confidence in their roles will be improved, and finally, students will have direct benefits from the teachers' redirected behaviour. All in all the final impact of the total programme will be reflected on the students' development in all aspects.

Objectives. The SBIT Workshop was organized by the Office of the National Primary Education Commission (ONPEC), Ministry of Education in collaboration with APEID at Rayong in April 1985.

The objectives of the SBIT Workshop were to improve teachers' knowledge, understanding and expertise so that they could account for their teaching responsibility. The five objectives were to:

1. Upgrade teaching skills and the working capabilities of all teachers in the same or several schools;
2. Upgrade the teaching skills and working capabilities of every individual teacher;
3. Enrich the teachers' experiences in view of individual advancement of their professional skills;
4. Better the teachers' understanding of the teaching profession; and
5. Provide general education for each individual teacher.

Training strategies. Two kinds of models were worked out. In the first, the SBIT design was handed down to the schools/school